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NILE RADAR MAPPING

Performing Mapping

The Nile Radar has the ability to map or profile its path to the surface of the water by suppressing interference echoes from obstructions that may cause false echoes. When adding a map to the instrument, you are creating a threshold that will tell the unit to ignore all false signals before this threshold. The mapping feature is accessed through the Nile's optional display.

The signal from the Nile reflects off everything within its footprint, which may include the water surface, the riverbank, and part of a bridge pier. Mapping will eliminate the data points from the bank and bridge pier so only the reflections from the water surface are recorded in the data.

Figure 1

Note that mapping does not just blank out the data above 48 ft; it maps the path of the signal and then subtracts out those signals above the initial water surface point. Thus, even if the water rises above the 48 ft point and overtops the banks, the Nile will still return an accurate water level.

In our example, let's say the riverbank returns signal strength of 5 db. When the water rises above the bank, the Nile will record the 5 db from the bank and perhaps 30db from the water surface. The graph will add the 5 db to the 30 db for a total of 35 db where the water is overtopping the bank. The mapping then subtracts out the 5db from the bank so it still shows only the water surface level.

Note: Adding a map will not cause your device to read incorrectly unless you initially map out the water surface. Additionally, if a second map is needed after the initial mapping is performed the initial map must be deleted first. For instructions on deleting a map see "Steps to Delete a Mapping" below (page 3).
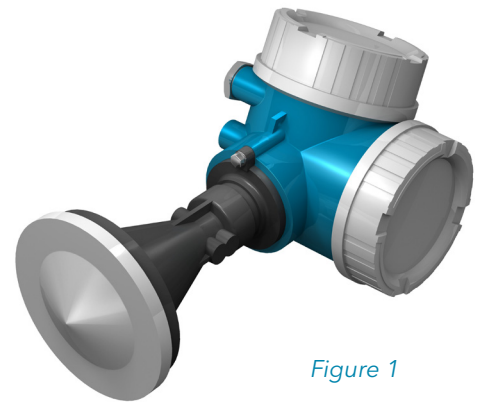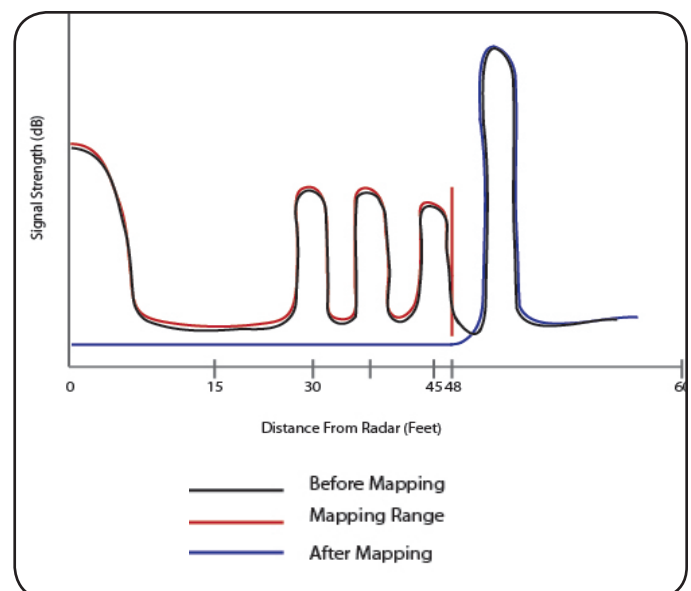

Figure 2

Steps to Perform Mapping

1. Remove the cap covering the display and detach by rotating it slightly counter clockwise until it clicks out (*Figure 3*). It is attached to the Nile by an 18" cable. If you do not already have the display connected, plug in the display now.

Figure 3

Figure 4

Figure 5

2. Press (E) key to enter in the Main menu (*Figure 4*)
3. Press the (+) key to Scroll down and highlight "Setup" and press the 'E' key (*Figure 6*)
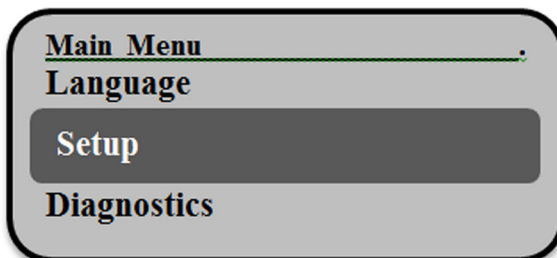4. Next, scroll down and highlight "Mapping" and press the 'E' key (*Figure 7*)
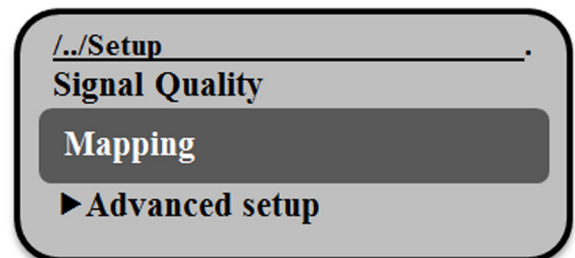

Figure 6

Figure 7

5. In the mapping menu, press the 'E' key on "Confirm distance" (*Figure 8*)
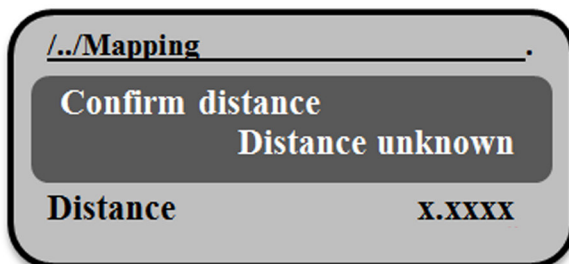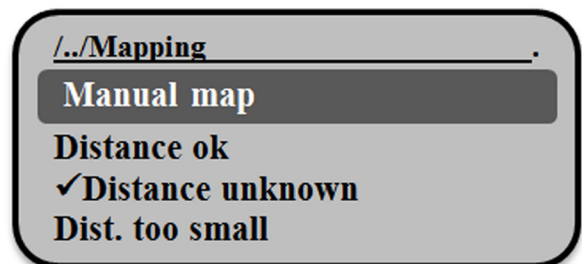6.. Then highlight "Manual map" and press the 'E' key (*Figure 9*)

Figure 8

Figure 9

7. Press the 'E' key on the "Map. End point" option (*Figure 10*)
8. Enter in the mapping end point (we recommend you set the distance to about 2 feet above the water surface), highlight the checkmark box and press the 'E' key (*Figure 11*)
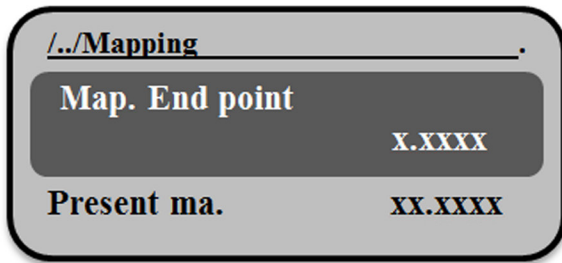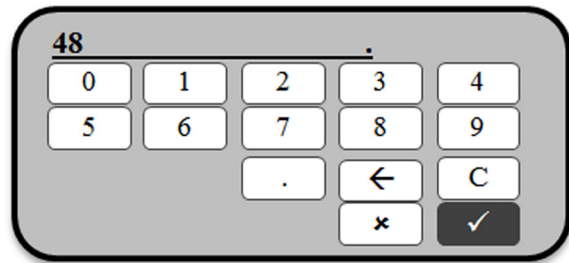

Figure 10

Figure 11

9. Press the 'E' key on the "Record map" option (*Figure 12*)
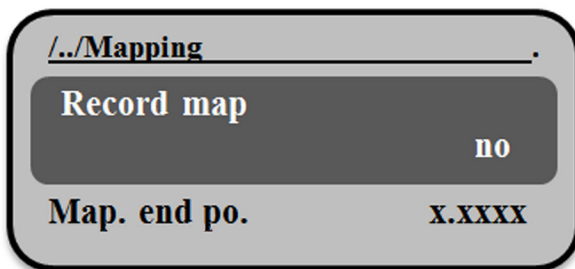10. Then scroll down and highlight the "Record map" option and press the 'E' key (*Figure 13*)

Figure 12
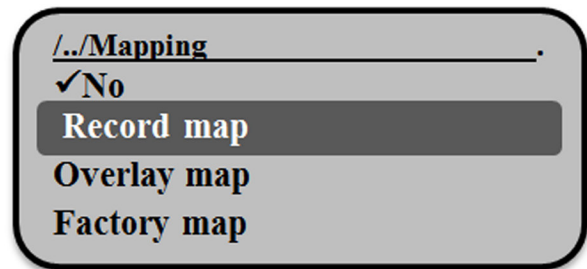

Figure 13

11. When it is complete it wil return to a "Distance" screen, press the key corresponding with the checkmark to continue
12. Mapping is complete

Steps to Delete a Mapping

When a Radar is installed we recommend performing a mapping. As time passes new obstructions may be exposed and the site may need to be remapped, but multiple mappings can result in bad data. When a mapping is performed it gets saved in the radar. If a second map gets performed it also gets saved and the radar tries to honor both mappings resulting in some radar confusion. To avoid this confusion simply delete the first mapping before performing the second.

To delete a mapping, follow steps 1-5 in the 'Steps to Perform Mapping' section, then follow steps 1-6 below.

1. Follow steps 1-5 in the 'Steps to Perform Mapping' section (see page 2)
2. In the mapping menu, press the 'E' key on "Confirm distance".
3. Then scroll down and highlight "Factory map" and press the 'E' key. (*Figure 15*)
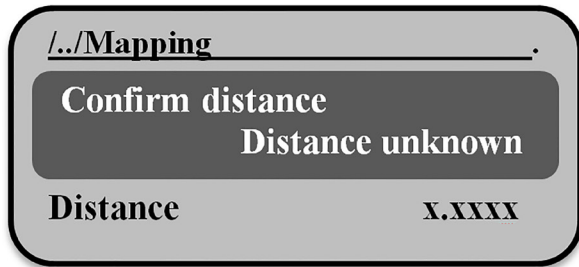
3

/../Mapping   .

Confirm distance
                    Distance unknown

Distance   x.xxxx

Figure 14

/../Mapping   .
Distance too small
Distance too big
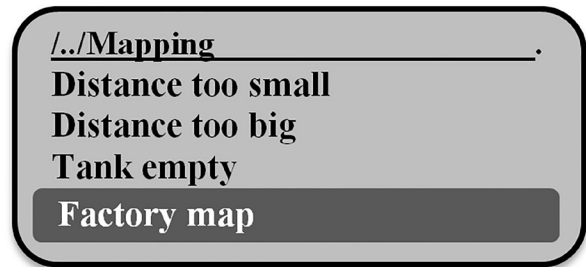**Tank empty**
  Factory map

Figure 15

4. Press the key corresponding with the checkmark to continue.
5. The screen will show an "End of sequence" then press the key corresponding with the checkmark to continue.
6. The screen will be back on the mapping option inside the setup menu.   All maps have been erased, and you can now perform a second mapping.

If you have questions on the mapping function with the Nile Radar or have any other questions YSI can support you with, reach out to us at support@waterlog.com or give our direct water level product support line a call at +1 (937) 767-2772.